



## **Discovering the Views of Indonesian Students' Responses to Use the Booklet During the Covid-19 Pandemic Situation**

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**Abstract.** The Covid-19 situations impacted the teaching and learning which reducing our activities by using the online platforms. The booklet is one of the solutions to use during a covid-19 situation which provides the opportunity to improve the learning process. This study aims to discover students' responses to use the booklet as learning media which contains the results of an inventory of medicinal plants in the biology courses. The questionnaire sheet was used as the instrument which contains the affective, cognitive, and conative aspects of students, and the questionnaire has 11 statement items. The participants of this study consist of 34 students. The results showed the average percentage of responses in each aspect were 77.59; 81.32; 83.19 to respectively the affective, cognitive, and conative aspects. It can be concluded that the developed booklet media received a positive response from students. However, in this paper, students' responses using the booklet practices are described, as well as the reflections of their learning activities.

**Keywords:** instructional media, interactive booklet, inventory of medicinal plants, biology course

## **Introduction**

Since coronavirus disease 2019 (Covid-19) was discovered in Indonesia as a disease that has an impact on death, Covid-19 was first confirmed in Wuhan, China in December 2019 (WHO, 2020). Even so, it was the first time Indonesia announced the disease was entered on March 2, 2020. Furthermore, Covid-19 cases continue to increase in Indonesia and several handling efforts to stop the spread of the Covid-19 pandemic have begun. On April 13, 2020, Presidential Decree (Keppres) number 12 of 2020 was issued stating that the spread of Covid-19 was a non-natural national disaster. This policy is a sign that the spread of the Covid-19 pandemic in Indonesia requires a high level of handling so that it can be addressed immediately. The next preventive step, the Indonesian Government through a joint decree of the Minister of Education and Culture, Minister of Religion, Minister of Health, and Minister of Home Affairs responded to this by closing all places that could potentially cause a crowd of Covid-19 transmission from entertainment venues to schools (MoEC, 2020). As an alternative way, online teaching is the most effective way possible to use regarding continuing the education in this Covid-19 situation (Rundle, et al., 2020;

Yamamura & Tsustsui, 2021). However, this happens is not only in Indonesia, teachers are struggling to provide how to teach students by using the online platform, creating the planning and choosing the content or teaching media, and providing feedback for their students (Babinčáková & Bernard, 2020; König, et al., 2020; Walan, 2020).

Distance learning is an alternative for students to be able to carry out learning activities during the current pandemic and has been defined by researchers such as Valentine (2002) argued that distance learning is the integration of technology into the learning process by using video assistance and computer instructions which designed to facilitate interaction between teachers and students. Bers (1999) described that distance learning can be identified in the learning process which refers to the competence of students by bringing the use of technology into learning as a learning tool such as the use of audio and videotapes, as well as interactive media that facilitate the interaction process, and online learning that is delivered to the website. Moore, et al., (2010) defined that distance learning as a learning and teaching process effort that involves assisting technology to explore and improve student knowledge such as the use of teaching materials designed as instructional teaching. However, studies mentioned that distance learning has advantages for teachers and students to find their role in the learning process without limited by space and time constraints compared to face-to-face learning and teachers are no longer the only source of students' knowledge but also can become facilitators to support the student learning process while students play an active role in what and how knowledge is given (Galusha, 1998). But there are some challenges to implement distance learning especially for students who feel isolated from their environment because they learn more on their own and teachers still have the lack technical knowledge to use suitable teaching materials for distance learning (Walan, 2020).

Over the past few years, there have been several empirical studies that have examined the use of technology in the distance learning process and views of students' responses in the learning process. But many of those studies consistently found that teachers have to struggle to understand the learning activities and they need to hold skills to organize the learning process and students' participation in the learning activities (Zulhelmi, et al., 2017; Antika & Haikal, 2019; Adarkwah, 2020; Babinčáková & Bernard, 2020; Hakim, et al., 2020). All researchers mentioned that media can also be an alternative for teachers in providing variations in the teaching and learning process, attracting students' attention, and gaining students understanding of the content material (Muhson, 2010; Panjaitan, et al., 2016; Salyani, et al., 2018; Panjaitan, et al., 2019; Wulandari, et al., 2020; Sari & Harahap, 2021 ). Besides that, media also can improve to develop students' curiosity, interest, and motivation for material presented by teachers in learning activities (Arsyad, 2014; Fitriani & Krisnawati, 2019). In another hand, researchers have examined the opportunities to use the booklet as learning media for students, there some aspects that can develop by using booklet in the learning activities: affective, psychomotor, and cognitive which can be seen as well as to complete students' learning achievement (Abbasi, et al., 2017; Sulaiman, et al., 2019). The booklet is one of learning media which consists of a small book containing material with some presentation pages of five to forty-eight pages (Pralisaputri, et al., 2016). The booklet is easy to use and understand for students because the feature can be smaller than ordinary textbooks. Also, it contains material concise and precise (Lubis, 2020). In general, the results showed that booklet can improve students' knowledge in the learning process (Rehusisma, et al., 2017; Silalahi, et al., 2018; Ferdiana, et al., 2016) and the presentation of the material in the booklet is categorized as attractive with good readability, efficient, and practical level for used (Fitriani & Krisnawati, 2019). Furthermore, previous studies have shown that booklet has a positive impact on students' learning and recommended to use as learning media which exploring students' achievements (Abbasi, et al., 2017; Setyaningsih, et al., 2019; Sulaiman, et al., 2019), provide the material for considering the effective and attracts

students' attention of learning (Kotzer & Elran, 2012; Paramita, et al., 2018), improve students' learning achievements and learning outcomes (Mahendrani & Sudarmin, 2015; Puspita, et al., 2017).

Through the use of booklets as learning media, it is hoped that it will produce certain responses for students in the teaching and learning process in the classroom. According to Wahyuningsih (2011) fun learning causes the growth of positive responses from students which directly have an impact on increasing interest in learning, activities following learning activities, which in turn have an impact on improving learning outcomes. Hidayah, et al. (2018) stated that learning media can provide a positive response for students. The response is a response, reaction, or answer. Responses can be in the form of requirements in the form of opinions that are considered good if they meet the conditions in a rational manner that can be put forward. Responses can also be expressed as impressions or reactions after observations of sensory activity, for example in assessing an object, an attitude will be formed towards the object in the form of either a negative or a positive attitude (Hidayati & Muhammad, 2013). Responses can be divided into three aspects: (1) cognitive, which relates to thoughts or perceptions of an object, (2) affective, which relates to one's attitudes, emotions, and assessments of an object, (3) conative, which is related to behavioral tendencies, desires, commitment, or action towards the object (Amir, 2015). In connection with the development of instructional media, before use, it should be assessed for its validity and tested the user's response to the media. The results of previous research indicate that learning media can be developed from the results of research, among others, Panjaitan, et al. (2020) developed histological preparations of the fish liver as a learning medium, and Panjaitan, et al. (2021) developed a booklet based on the results of inventory medicinal plants. Therefore, this study aims to determine students' responses to the use of booklets as learning media.

## **Methods**

This study employs descriptive research through a cross-sectional survey method to collect the data from the individuals' numbers which are used to evaluate (Creswell, 2012). The survey was reported to explore the views of understanding on individual perspective in-depth current situations of respondents. This design was used to define the respondents' sense and report the credibility, consistency, and transferability of the conditions (Merriam, 2014). It is also used to describe discovering the views of Indonesian students responses to use the interactive booklet by providing the information of what students' think and reflect. Furthermore, the research procedure is to determine the research subject, compile a response questionnaire, collect response data in the field, and process and analyze the data. The data collection technique used in this research is indirect communication techniques. The participants of this study consist of 34 students from the biology education program of the faculty of teacher training education at Tanjungpura University Indonesia. The stages in the process of making a booklet are determining the scope of the material and plant documentation used in the booklet, determining the title of the booklet, arranging the components in the booklet, editing including adjusting images, colors, and margins, validating the product to determine the feasibility of the booklet as learning medium. From the validity test, the booklet media used has been declared feasible with a validation value of 1.00 (Panjaitan, et al., 2021). To assess the variables of this study, we used the questionnaire as the instrument comprising of 11 statement items which discovering the information about students' interests, perception, and motivation faced on booklet as learning media. The questionnaire was designed by authors through full assistance of professional ethnic validity and reliability. The validation result showed the instrument is suitable for use to assess students. The form of the questionnaire used was a closed

questionnaire. The questionnaire has 11 statement items with four assessment criteria, namely SS (strongly agree), S (agree), TS (disagree), STS (strongly disagree). The aspects that are assessed from the questionnaire consist of affective, cognitive, and conative aspects, and the statements in the questionnaire consist of positive statements and negative statements. Analysis of data validation results refers to Riduwan (2013).

## Results and Discussion

Booklets have many advantages, including attracting interest and attention because of the simple form which presenting material accompanied by a variety of colors and various illustrations. Furthermore, the booklet is simple and easy to use for students to read anywhere and anytime. Most importantly, booklets or comics or pocket books can help improve understanding of the material and improving students' knowledge and attitudes (Lin, et al., 2014; Imtihana, et al., 2014; Gemilang & Christiana, 2016; Abbasi, et al., 2017; Rahmatih, 2017; Salyani, et al., 2018; Sulaiman, et al., 2019; Sari & Harahap, 2021). In this study, the preparation of booklets has been adapted for learning aspect materials and the basis of classification, the nomenclature binomial naming system, and angiosperms in the Plant Taxonomy of Biology course which followed the validator's advice. The results of the distribution of response questionnaires to this booklet media are presented in Table 1.

**Table 1.** The results of the response questionnaire analysis of the booklet media of medicinal plants in Pontianak

| Aspects                                     | Indicator   | Response Score (%) | Criteria  |
|---|---|--------------------|-----------|
| Affective                                   | Students' interests in booklets   | 81.90              | Very weak |
|   | Motivation  | 81.90              | Very weak |
|   | Students' interests in the image presented                                    | 62.07              | Enough    |
|   | Students' interests in the information presented                              | 84.48              | Very weak |
| The average response to affective aspects   |   | 77.59              | Weak      |
| Cognitive                                   | Students' perception of the information presented in the booklet              | 77.59              | Weak      |
|   | Students' perception of the knowledge obtained from the information presented | 88.79              | Very weak |
| The average response to cognitive aspects   |   | 81.32              | Very weak |
| Conative                                    | Tendency to use booklets  | 83.19              | Very weak |
| The average response on the conative aspect |   | 83.19              | Very weak |
| Overall response rate                       |   | 80.70              | Very weak |

### **Affective Aspect**

From the result of our study, the affective aspect has an average score of 77.59% which is included in the high criteria of students' achievements. This aspect is related to students' emotions, attitudes, and assesses their friends towards something. This response developed by changing what the audience likes about learning activities as well as we found that affective aspects have several indicators such as students' interests in learning of booklet, motivation, student interest in the images presented, student interest in the information presented. Our finding is related to a result of Sulaiman, et al. (2019) who found that affective learning can be seen by students' attitudes in the discussion environment in the learning activities. However, other studies argued that students' attitudes can be indicated by their confidence in the learning activities such as students' self-efficacy will be improved by their ability and knowledge to understand the concepts through practicing the daily activities where they can take place (Kotzer & Elran, 2012). Additionally, in this booklet, media contains information about the benefits of medicinal plants, both their properties in the treatment of diseases as well as the content of chemical compounds in these plants. Students considered the information to be very useful when they found something new such as knowledge about the benefits of plants in their surroundings (Figure 1). This finding coincides with the results of research conducted by Fitria (2017) who found that local potential can be indicated as one of local wisdom which used as an alternative concept to facilitate students in the science learning process. Besides that, other researchers also argued that information from the booklet will generate students' interests and motivation for learning (Arsyad, 2014). However, we used the booklet to displays images of medicinal plants, color composition, and writing using the appropriate size and typeface to capture students' attention in learning as well as teachers can use this as a tool for teaching activities.

### **Cognitive Aspect**

From the result of our study, the cognitive aspects showed an average score of 81.32% which is included in the very high criteria of students' accomplishments. This aspect is closely related to students' knowledge of skills and information about their reflection on learning activities. We found that this response occurred when students understood or perceived by facing the problem. As mentioned by Solichin (2012) described that the cognitive realm is related to the intellectual or thinking aspects which exploring the knowledge, understanding, application, decomposition, integration, and assessment of students' reflections. Furthermore, Nisa, et al. (2019) have examined the cognitive aspects of students when they learned from the booklet which indicated students' analytical skills to remember and organize their ideas and things of learning. However, we have a fund that the cognitive aspects consist of two indicators, namely students' perceptions of the information presented in the booklet and students' perceptions of the knowledge obtained from the information presented. Based on these indicators, it is known that this booklet media as a learning medium can provide information and increase students' knowledge of the information provided the clear description of the morphological characteristics of a plant through the pictures (Figure 2). This is similar to previous studies that suggested the effective media is provided the interaction activities between teacher and students (Anitah, 2010; Nugroho, et al., 2012; Fatmala, 2016; Sadikin, 2019).



Gambar 12: Daun melinjo muda



Gambar 13: Biji melinjo



Gambar 11: Tumbuhan melinjo

Daun melinjo mengandung senyawa kimia flavonoid, fenolik, alkaloid, saponin, dan polifenol (Haryani, et al., 2016). Kulit melinjo diyakini oleh masyarakat kota Pontianak digunakan untuk mengobati asam urat. Dari hasil penelitian juga ditemukan bahwa ekstrak etanol daun dan kulit melinjo dapat menurunkan kadar asam urat (Sari, et al., 2019). Selain itu, berdasarkan penelitian yang dilakukan Wardani, et al., (2019) menyatakan bahwa, ekstrak kulit melinjo memiliki aktivitas sebagai antihiperkolesterolemi. Biji melinjo memiliki khasiat untuk menurunkan kadar gula darah (Ira & Ikhsa, 2015).

**Figure 1.** Presentation of images and information on medicinal plants in the booklet relating to affective aspect

#### 5. Famili Fabaceae

##### Tumbuhan jengkol (*Pithecellobium jiringa* (Jack) Merr.)

Tumbuhan jengkol merupakan tumbuhan yang tergolong dalam keluarga biji-bijian. Tumbuhan jengkol memiliki akar tunggang dengan. Pohon jengkol memiliki tinggi yaitu  $\approx 20$  m, tegak bulat berkayu, licin, percabangan simpodial, cokelat kehitaman. Daun jengkol warna hijau tua, daun majemuk, bentuk lonjong, berhadapan, tepi rata, ujung runcing, pangkal membulat, pertulangan menyirip, panjang daun 10-20 cm, lebar daun 5-15 cm dan tangkai daun memiliki panjang 0,5-1 cm. Bunga pada tumbuhan jengkol memiliki struktur majemuk, berbentuk seperti tandan. Bunga tumbuhan jengkol terdapat di ujung dan ketiak daun, tangkai bulat, panjang 3 cm dan berwarna putih kekuningan. Kulit buah bentuk menyerupai kelopak mangkok, berwarna ungu kehitaman. Buah jengkol berbentuk bulat pipih berwarna cokelat kehitaman (Hariana, 2013).

Masyarakat kota Pontianak memanfaatkan kulit buah jengkol (*Pithecellobium jiringa* (Jack) Merr.) sebagai obat diabetes. Berdasarkan hasil uji fitokimia memberikan informasi bahwa kulit jengkol mengandung senyawa kimia golongan fenolik, flavonoid, steroid, dan saponin (Kartika, et al., 2011). Selain itu dari hasil penelitian yang dilakukan juga dapat diambil asumsi bahwa ekstrak kulit jengkol dengan dosis 450 mg/kg BB dapat berfungsi sebagai obat antidiabetes oral tipe 2.



Gambar 9: Buah jengkol



Gambar 10: Biji jengkol

**Figure 2.** Presentation of one of the medicinal plant information related to cognitive aspects

#### Conative Aspect

From the result of our study, we also found the conative aspects showed an average score of 83.19% which is included in the very high criteria of students' engagements. This aspect is related to students' behavior such as their actions or habits in the learning activities. The response appears when there is an object being observed, there is attention to an object of observation and there are five senses as a catcher of the object being

observed. The conative aspect has the highest average score, the indicator in this aspect is the tendency to use booklets. This indicates that the booklet attracts students' interest to be used as a learning medium. This finding connected to Gemilang and Christiana (2016) that argued the booklets has the benefit and opportunity and easy to use at any time because the design is in the form of a book which consists of the messages and information in the large scale, and an attractive booklet design will engage students' interests in learning. Based on the result of our study, we found that the average response in each aspect was positive around 80.70%, which indicated the very high criteria of students' engagements. This finding is related to Wicaksono (2014) argued that the category of students' responses when using the booklet is strong or very strong criteria, it can be concluded that the learning media developed received a positive response from students.

## Conclusion

During this Covid-19 pandemic situation, distance learning is an alternative way to use for teaching and learning especially in our country that currently, we are still facing online learning activities. Teachers are required to practice the integration of technology and students are essential to understand and learn from the technology incorporation. For that reason, this study was to determine the students' responses on using the booklet as learning media which contains the results of an inventory of medicinal plants in the biology courses. The results of the average percentage of responses in the use of booklets as learning media showed the positive response with the average gain of each aspect, namely the affective aspect of 77.59%, the cognitive aspect of 81.32%, and the conative aspect of 83.19%. The average of these three aspects is 80.70% which indicated very high criteria.

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